



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2022-0463; Project Identifier MCAI-2021-00895-T; Amendment 39-22245; AD 2022-24-05]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A318, A319, A320, and A321 series airplanes. This AD was prompted by a report that damage (including delamination of the work deck, and corroded and cracked retainer blocks) was found during inspection of certain galleys. This AD requires repetitive inspections of certain galleys for corrosion of trolley retainer aluminum blocks and delamination of the upper panel of the trolley compartment, and applicable corrective action, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. This AD also limits the installation of affected parts under certain conditions. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:**

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0463; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

*Material Incorporated by Reference:*

- For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); website [easa.europa.eu](https://easa.europa.eu). You may find this IBR material on the EASA website at [ad.easa.europa.eu](https://ad.easa.europa.eu).

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0463.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229; email [vladimir.ulyanov@faa.gov](mailto:vladimir.ulyanov@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes; Model A320-211, -212, -214, -215, -216, -231, -232, -233,

-251N, -252N, -253N, -271N, -272N, and -273N airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes. The NPRM published in the *Federal Register* on April 18, 2022 (87 FR 22818). The NPRM was prompted by AD 2021-0183R1, dated September 20, 2021, issued by the European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union (referred to after this as the MCAI). The MCAI states that damage (including delamination of the work deck, and corroded and cracked retainer blocks) was found during inspection of certain galleys. The FAA is proposing this AD to detect and correct damage that could affect the galley's capability to hold the trolley under emergency landing loads, which could lead to trolley detachment, possibly resulting in blocking of an escape path during an emergency exit.

In the NPRM, the FAA proposed to require repetitive inspections of certain galleys for corrosion of trolley retainer aluminum blocks and delamination of the upper panel of the trolley compartment, and applicable corrective action, as specified in EASA AD 2021-0183R1. The NPRM also proposed to limit the installation of affected parts under certain conditions. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0463.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received comments from two commenters, including American Airlines (AAL) and Delta Air Lines (DAL). The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request for Improved Repair Instructions**

AAL requested that the FAA coordinate with Safran, Airbus, and/or EASA to discuss a repair solution more appropriate than the repair specified in the service information referenced in the MCAI, perhaps one that would replace a section of the entire work deck that encompasses all of the trolley blocks with a pre-fabricated composite and less-corrosive work deck section. AAL considered the intervals, and in particular, the repair methods to be ill-conceived. AAL explained that the repair is impractical and overly invasive and does not take into consideration details of the bonded structure such as potted inserts, cutouts for pivoting T-dividers, and adjacent structural elements such as the stabbing assembly which is often destroyed or damaged during a disbond process. AAL also explained that, among other things, applying heat to bonded parts to facilitate their removal is overly optimistic (as a solution to address the unsafe condition) and causes damage that can lead to other unsafe conditions. AAL expressed concerns that the scope of damage could lead to additional approvals that would be overwhelming to the FAA, AAL, Safran, and Airbus. Therefore, AAL asked the FAA to consider a more comprehensive repair approach in lieu of incorporating by reference EASA AD 2021-0183R1. AAL proposed a repair that would involve trimming and replacing a section of the entire work deck that encompasses all of the trolley blocks. The FAA does not agree. The FAA has not received revised service information that would address AAL's concerns and waiting for revised service information would delay the actions required to address the specified unsafe condition. In addition, EASA's response to a similar comment in the associated EASA proposed AD (PAD) explains that it is in the interest of safety to start the inspection campaign with the available instructions, rather than delaying that, pending the development and approval of a new repair. As stated in the NPRM, this AD action has been identified as interim action pending the potential development of a final action. However, under the provisions of paragraph (j)(1) of this AD, the FAA will consider requests for approval of an alternative method of

compliance (AMOC) if sufficient data are submitted to substantiate that the method would provide an acceptable level of safety. The FAA has not changed this AD in this regard.

#### **Request for Revised Cost Estimate**

AAL requested the proposed AD be revised to include repair cost estimations in the on-condition cost estimate. AAL stated that its prior operational experience shows that an operator should expect an average workscope greater than an inspection, likely including retainer block replacement.

The FAA agrees to revise the cost estimate for on-condition actions. The estimate has been revised to include a worst-case scenario of 40 work-hours per airplane for the intermediate repair of replacing all retaining blocks.

#### **Request for Delay of AD Issuance**

DAL requested delaying AD issuance until new or revised service information is published. DAL stated that the next revisions of the service information referenced in EASA AD 2021-0183R1 would contain the following corrections and add-ons: a final fix for Galley G2A, G4x, and G5; revision of the “Quick Fix” adhesive reference from DP100FR to DP100; and the addition of a missing figure in the instructions for installing doublers when doing the panel skin restoration.

The FAA disagrees. Although a later revision was issued, the later revision did not include updated instructions for the galleys. The FAA does not consider that delaying this action for the final fix is warranted since sufficient service information currently exists to address the unsafe condition until the final fix is identified and published. As stated previously, the FAA might consider further rulemaking once a final action is developed, approved, and available. However, under the provisions of paragraph (j)(1) of this AD, the FAA will consider requests for an AMOC if such final action is submitted. The FAA has not changed this AD in this regard.

## **Requests to Extend Compliance Time**

DAL requested extending the initial inspection grace period from 12 months after the effective date of the AD to 24 months. DAL stated that during conversations with Airbus, DAL was not provided with a definite answer on whether sufficient parts or materials would be available to support repairs within a 12-month timeline. AAL also expressed concerns about obtaining replacement parts from Safran in a timely manner.

The FAA disagrees to extend this compliance time. The FAA considered the recommendations of EASA and the manufacturer, the availability of parts and the safety implications, and determined that the 12-month grace period, as proposed, will provide an adequate level of safety. However, under the provisions of paragraph (j)(1) of this AD, the FAA will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the extension would provide an acceptable level of safety. The FAA has not changed this AD in this regard.

## **Request to Address Damage Found During Post-Repair Inspection**

DAL requested that the proposed AD be revised to specify the follow-on corrective action necessary to address damage found during inspections done after an “Intermediate Fix” was accomplished. DAL noted that after an “Intermediate Fix” has been accomplished, the service information states that the next inspection may be postponed up to 36 months after the repair action, but if that inspection has findings of damage, no repair instructions are specified.

The FAA agrees that no repair instructions are specified for findings of damage. Since no repair instructions are specified, the FAA has added paragraph (h)(4) of this AD to specify contacting EASA, the FAA, or Airbus’s SAS EASA Design Organization Approval (DOA) for approval of repair instructions.

## **Request to Address Existing Repairs on Inspection Area**

DAL requested that the FAA add an exception in paragraph (h) of the proposed AD that addresses a related plan of action, explains whether an AMOC is required for existing repairs in the inspection area, or states that existing repairs that are permanent terminate the repetitive inspection.

The FAA agrees to clarify. AMOCs provide an alternative method of compliance to the methods required to be used in the associated AD. An AMOC is issued only after an AD has been issued and only after data are provided to show that the proposed solution is complete and addresses the unsafe condition. However, once this AD is published, any person may request approval of an AMOC under the provisions of paragraph (j)(1) of this AD. Operators with an existing repair in the inspection area may submit information on the repair for consideration as a possible terminating action. The FAA has not changed this AD in this regard.

## **Conclusion**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

## **Related Service Information Under 1 CFR Part 51**

EASA AD 2021-0183R1 specifies procedures for repetitive general visual inspections of certain galleys for discrepancies including corrosion of trolley retainer aluminum blocks and delamination of upper panel of trolley compartment, and corrective

action. Corrective actions include repeating the inspection at an earlier interval, repairing the trolley compartment upper panel, and limiting trolley weight. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Interim Action**

The FAA considers that this AD is an interim action. If final action is later identified, the FAA might consider further rulemaking then.

### **Costs of Compliance**

The FAA estimates that this AD affects 1,425 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
2 work-hours X \$85 per hour = \$170 per galley, per inspection cycle	\$0	\$170 per inspection cycle	\$242,250 per inspection cycle

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

#### **Estimated costs of on-condition actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
40 work-hours X \$85 per hour = \$3,400	Minimal	\$3,400

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.



Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2022-24-05 Airbus SAS:** Amendment 39-22245; Docket No. FAA-2022-0463; Project Identifier MCAI-2021-00895-T.

**(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all Airbus SAS Model airplanes identified in paragraphs (c)(1) through (4) of this AD, certificated in any category.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 25, Equipment/Furnishings.

**(e) Unsafe Condition**

This AD was prompted by a report that damage (including delamination of work deck, and corroded and cracked retainer blocks) was found during inspection of certain galleys. The FAA is issuing this AD to detect and correct damage that could affect the

galley's capability to hold the trolley under emergency landing loads, which could lead to trolley detachment, possibly resulting in blocking of an escape path during an emergency exit.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2021-0183R1, dated September 20, 2021 (EASA AD 2021-0183R1).

**(h) Exceptions to EASA AD 2021-0183R1**

(1) Where EASA AD 2021-0183R1 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2021-0183R1 refers to "18 August 2021," this AD requires using the effective date of this AD.

(3) The "Remarks" section of EASA AD 2021-0183R1 does not apply to this AD.

(4) Where EASA AD 2021-0183R1 does not specify corrective action after a post-repair inspection that has findings of damage, this AD requires obtaining repair instructions before further flight from the FAA, EASA, or Airbus SAS's EASA Design Organization Approval (DOA) and accomplishing those actions accordingly. If approved by the DOA, the approval must include the DOA-authorized signature.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2021-0183R1 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

## **(j) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager, International Validation Branch, mail it to the address identified in paragraph (k) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraphs (i) and (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(k) Additional Information**

For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3229; email [vladimir.ulyanov@faa.gov](mailto:vladimir.ulyanov@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0183R1, dated September 20, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0183R1, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); website [easa.europa.eu](http://easa.europa.eu). You may find this EASA AD on the EASA website at [ad.easa.europa.eu](http://ad.easa.europa.eu).

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this

material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on November 9, 2022.

Christina Underwood, Acting Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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